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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/759,165	01/16/2001	Veronique Douin	05725.0827-00000	9808

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EXAMINER
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WANG, SHENGJUN

ART UNIT	PAPER NUMBER
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1617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/15/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/759,165	<b>Applicant(s)</b> DOUIN ET AL.	
	<b>Examiner</b> Shengjun Wang	<b>Art Unit</b> 1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,18,25,28,39,43-58,70 and 71 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,18,25,28,39,43-58,70 and 71 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### DETAILED ACTION

Receipt of applicants' amendments and remarks submitted December 21, 2006 is acknowledged.

#### *Claim Rejections 35 U.S.C. 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 71 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 70 recites "R10 and R11 are each chosen from piperidyl groups and morpholinyl groups" lack support from the application as originally filed.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 70 and 71 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. The formula of (XVIII) and (XIX) have fragment (R12)-CH<sub>2</sub>-, it is not clear how this fragment attached to the ring. Note the methylene carbon next to R12 is saturated. The claims are indefinite as to the structure of the polymer.

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6. Claim 71 recites the limitation " R10 and R11 are each chosen from piperidyl groups and morpholinyl groups " in lines 4-5. There is insufficient antecedent basis for this limitation in the claim.

### ***Double Patenting Rejections***

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 3, 18, 25, 28, 38, 39, 43-58 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 12, 16, 20 and 21 of copending Application No. 09/759,530. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims herein and those in '530 overlap. Particularly, '530 particularly claims the elected amphoteric starch, and at least one cationic polymer. Note the cationic polymer employed herein is known commercial products.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 U.S.C. 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 18, 25, 28, 38, 39, and 43-58 rejected under 35 U.S.C. 103(a) as being unpatentable over Sweger et al. (US patent 5,482,704, or record), in view of Matsumoto et al. (U.S. Patent 6,010,689) and Uchiyama et al. (US Patent 5,876,705).

Sweger teaches a hair compositions containing amino-multicarboxylate modified starch. See the claims. Example 1 illustrates a starch modified with 2-chloroethylaminodipropionic acid (CEPA) (see col. 6, line 44 through col. 7, line 10). The starch derivatives provide thickening and emulsion stabilization and exhibit good appearance and feel to the skin (see col. 1, lines 32-37, col. 9, lines 60-63). The reference teaches that polyacrylic acid polymers such as Carbopol resins are the leading thickeners and emulsion stabilizers in the skin care and hair care markets. The reference further teaches that CEPA-modified starch gives stable viscosity over time and is superior to the Carbopol® standard (see col. 9, lines 1-6).

Sweger does not teach expressly the other ingredients in the hair composition, such as conditioning agent behenyltrimethylammonium, or anionic surfactant alkyl ether sulfate. However, it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed the invention was made, to use hair conditioning agents, and surfactants because those are well known essential ingredients normally used for hair compositions. For

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example, Matsumoto et al. teaches that behenyltrimethylammonium is a well-known hair conditioning agent, and alkyl ether sulfate are anionic surfactant known to be useful in hair composition. See, particularly, column 2, line 13 to column 3, line 36, column 5, lines 28-50, and column 7, lines 13-65. Uchiyama et al. teaches that a conditioning shampoo composition may comprise anionic surfactant, conditioning agent, such as behenyltrimethylammonium and thickener. See, particularly, the claims, and column 22, lines 34-55. Further, The optimization of a result effective parameter, e.g., optimal amounts of each known ingredients in a cosmetic composition, or a proper pH, is considered within the skill of the artisan. See, In re Boesch and Slaney (CCPA) 204 USPQ 215.

9. Claims 1, 3, 18, 25, 28, 38, 39, and 43-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Janchipraponvej (US Pat. 4,954,335) in view of Sweger et al (US Pat. 5,482,704) and Martino et al (US Pat. 6,210,689) and in further view of Uchiyama et al.

Janchipraponvej teaches clear conditioning compositions and methods to impart improved properties to hair. The compositions provide excellent wet comb and dry comb properties to the hair, and the hair demonstrates improved physical and cosmetic properties (see col. 7, lines 21-48). The compositions of Janchipraponvej contain quaternary ammonium compounds (see col. 8, line 8-47). Behenyltrimethylammonium chloride is specifically taught (see col. 10, lines 1-29). Weight percentages of the quaternary ammonium compound are taught (see col. 10, lines 30-45). The reference teaches the use of thickening agents such as polyacrylic acid derivatives, and that the resulting compositions are relatively viscous compositions that are stable to phase separation for an indefinite period of time (see col. 16, lines 9-32). A preferred range of pH from 5.5 to 6.5 is taught (see col. 14, lines 5-18). Additional surfactants are included

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in the composition (see col. 14, line 19 through col. 15, line 18). The reference lacks modified starch and anionic surfactants.

Sweger teaches cosmetic compositions containing amino-multicarboxylate modified starch. Example 1 illustrates a starch modified with z-chloroethylaminodipropionic acid (CEPA) (see col. 6, line 44 through col. 7, line 10). The starch derivatives provide thickening and emulsion stabilization and exhibit good appearance and feel to the skin (see col. 1, lines 32-37., col. 9, lines 60-63). The reference teaches that polyacrylic acid polymers such as Carbopoll resins are the leading thickeners and emulsion stabilizers in the skin care and hair care markets. The reference further teaches that CEPA-modified starch gives stable viscosity over time and is superior to the Carbopol® standard (see col. 9, lines 1-6). Sweger et al. further teaches that the CEPA-modified starch may be used together with other ionic or non-ionic surfactants. See, particularly, col. 4, line 39 to col. 5, line 13.

Martino teaches the use of alkyl ether sulfate salts as well known surfactants in cosmetic formulations (see col. 5, lines 1-26). The reference teaches that certain alkyl ether sulfate salts are particularly useful in combination with keratin treating cosmetic compositions containing amphoteric starch derivatives as disclosed in the reference (see abstract and col. 5, lines 16-17). Uchiyama et al. teaches that a conditioning shampoo composition may comprise anionic surfactant, conditioning agent, such as behenyltrimethylammonium and thickener. See, particularly, the claims, and column 22, lines 34-55.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the compositions of Janchipraponvej by the addition of amphoteric starches as taught by Sweger and anionic surfactants as taught by Martino in order to benefit

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from the improved results of the amphoteric starches with respect to viscosity and thickening as taught by Sweger.

10. Claims 70 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sweger et al. (US patent 5,482,704, or record), in view of Matsumoto et al. (U.S. Patent 6,010,689) and Uchiyama et al. (US Patent 5,876,705), in further view of Sokol (US 3,912,808); or over Janchipraponvej (US Pat. 4,954,335) in view of Sweger et al (US Pat. 5,482,704) and Martino et al (US Pat. 6,210,689) and in further view of Uchiyama et al., in further view of Sokol (US 3,912,808).

The teaching of Sweger et al. Matsumoto et al. , Uchiyama et al. Janchipraponvej, and Martino et al. are discussed above, the references do not teach expressly the particular polymers herein as hair conditioning agents.

However, Sokol et al. teaches the polymers herein as hair conditioning agent and are useful in hair care composition. the conditioning effect produced by incorporating these polymers in a hair treating composition is remarkably durable, persisting in many cases through several successive rinses and even through successive washings with a conventional detergent or shampoo composition. See, particularly, col. 2, line 30 to col. 3, line 53, col. 5, line 19 to col. 6, line 10. Therefore it would have been obvious to incorporate the particular cationic polymer herein, as conditioning agent, in the hair care product as suggested by Sweger et al. (US patent 5,482,704, or record), in view of Matsumoto et al. (U.S. Patent 6,010,689) and Uchiyama et al. and Janchipraponvej (US Pat. 4,954,335) in view of Sweger et al (US Pat. 5,482,704) and Martino et al (US Pat. 6,210,689) and in further view of Uchiyama et al. The particular polymer recited in claim 71 is view as obvious variation of those taught by Sokol. Note Sokol teach A and



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B (R10 and R11 herein) are independently (i.e., either both the same or different) alkyl groups having one to 22 carbon atoms, lower hydroxyalkyl groups having from one to five carbon atoms, and lower alkyl groups containing terminal amido groups such as beta-propionamido; and wherein A and B together with N are piperidinyl or morpholinyl groups.

***Response to the Argument***

Applicants' amendemnts and remarks submitted December 21, 2006 have been fully considered, but are not persuasive.

11. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the teaching suggestion and motivation are found in the cited references and in the knowledge generally available to one of ordinary skill in the art. Particularly, Sweger teaches the modified starch herein are known to be useful in hair care products, and the other agents herein are well-known hair care product ingredients. Therefore, a prima facie case of obviousness for incorporating the well known hair care agents, such as conditioning agent, into the care product comprising the modified starch.

12. The declaration under 37 C.F.R. 1.132 by MAHE submitted September 13, 2006 fails to rebut the prima facie case of obviousness as set forth in the rejections. Regarding the establishment of unexpected results, a few notable principles are well settled. It is applicant's

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burden to explain any proffered data and establish how any results therein should be taken to be unexpected and significant. See MPEP 716.02 (b). The claims must be commensurate in the scope with any evidence of unexpected results. See MPEP 716.02 (d). Further, the claimed subject matter must be compared with the closest prior art in order to be effective to rebut a prima facie case of obviousness. See, MPEP 716.02 (e). In the instant case, the claimed invention is not commensurate in scope with the data presented in the declaration. Particularly, the data shows some benefit of the particular amphoteric starch in combination with one of three particular cationic agents: hexadimethrin chloride, cetytrimethylammonium and DC2-8299, for treating hair, compared with the cationic agent combined with nonionic starch. However, there is no rationale as to how the benefit residing in those three cationic agents would be extrapolated to all the cationic agents herein claimed.

13. As to the rejections over Janchipraponvej (US Pat. 4,954,335) in view of Sweger et al (US Pat. 5,482,704) and Martino et al (US Pat. 6,210,689) and in further view of Uchiyama et al., applicants' arguments are not persuasive for reasons discussed in the office actions mailed February 24, 2004, and August 11, 2004.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

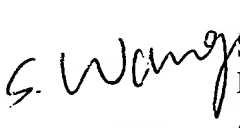
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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shengjun Wang whose telephone number is (571) 272-0632. The examiner can normally be reached on Monday to Friday from 7:00 am to 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan, can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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